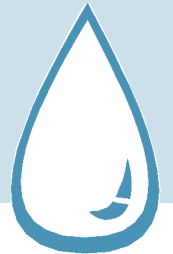


# WARWICK WWTF

**W**arwick built its first wastewater treatment facilities in 1965. Today, the city is spending \$110 million dollars to upgrade and expand its system, increase flow capacity, as well as to meet new discharge limits for nutrients. With thirteen operators and mechanics, the O&M staff oversees the wastewater facility and 30 pumps stations. Based on current projections, the staff will be responsible for maintaining an additional 20 pump stations as the collection system expands to the outlying areas of the city. As part of this upgrade, a dechlorination system is being constructed, along with pre-discharge aeration. These additions should be complete by year's end. Warwick's wastewater facility discharges to the Pawtuxet River.



**Superintendent:** Joel Burke  
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 125 Arthur W. Devine Blvd.  
 Warwick, RI 02886  
**Telephone #:** 739-4949  
**Fax #:** 739-1414  
**E-mail:** [dvinhateiro@warwickri.com](mailto:dvinhateiro@warwickri.com)



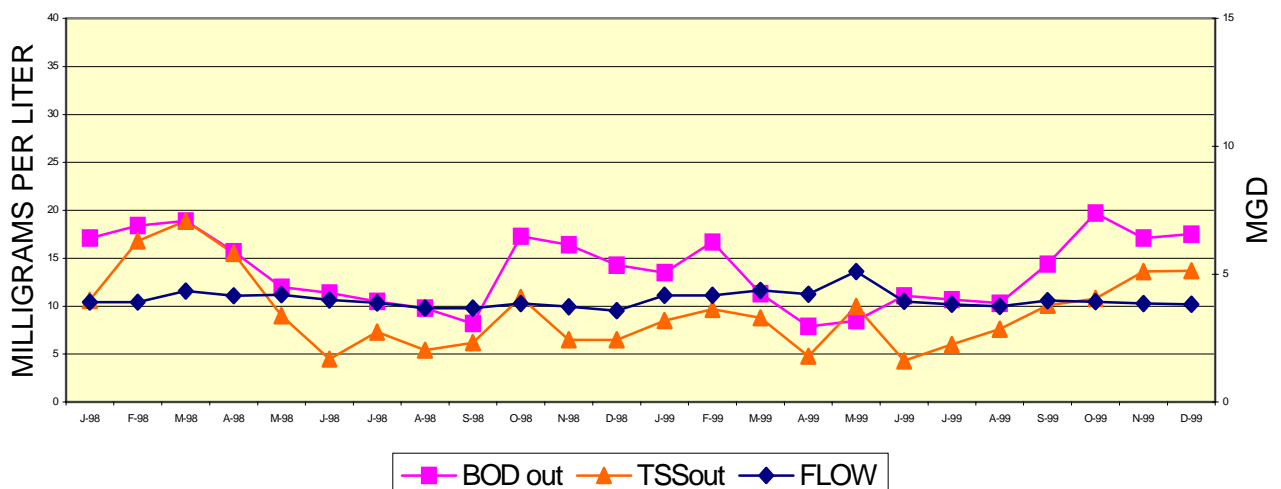
## Overall Treatment: Excellent

Having no monthly violations for flow, BOD, TSS or fecal coliform, Warwick received a rating of Excellent.

### CURRENT AND FUTURE CONCERNS

In 1989, Warwick, as well as Cranston and West Warwick were issued permits that required reductions in ammonia, TSS and BOD to improve oxygen levels in the Pawtuxet River. As required by the existing consent decree, the City has completed 50% design of the required facility modifications. The RIDEM has drafted a new permit for Warwick and it will be Public Noticed and reissued in June 2000. The new permits include seasonal nitrogen limits, seasonal phosphorus limits, and year round ammonia limits. The plans submitted by the City include the modifications necessary to achieve the proposed total nitrogen and phosphorus limits.

WARWICK EFFLUENT DATA - 1998/1999



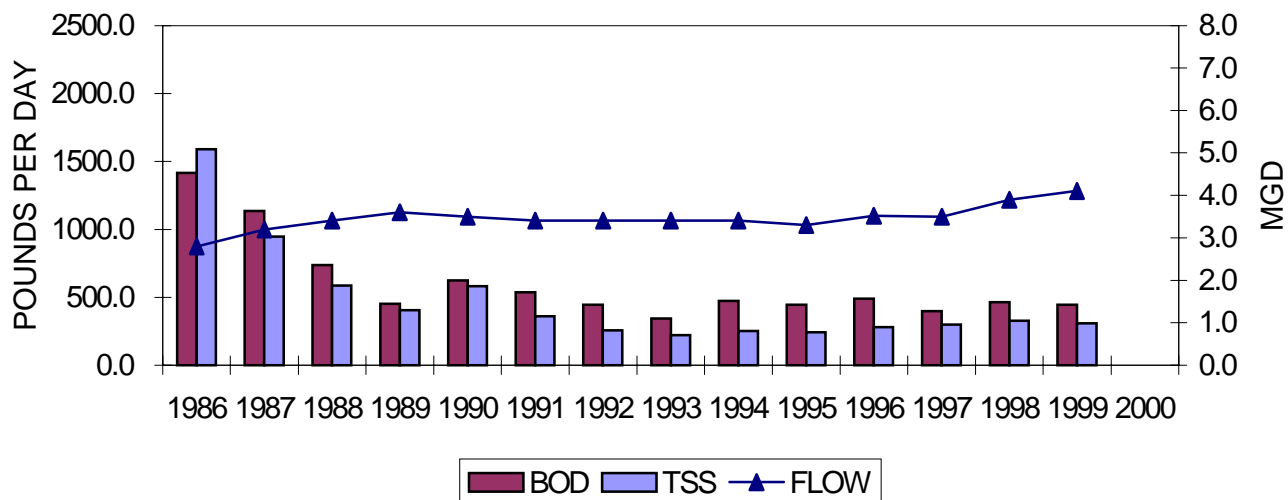
# BEGAN OPERATION 1965

## ANNUAL SURVEY

PARAMETER	1996	1997	1998	1999	PERMIT LIMIT	VIOLATIONS 1998/1999
FLOW (MGD)	3.5	3.5	3.9	4.1	7.7	0/0
BOD INFLUENT (MG/L)	380.0	364.9	274.7	294.9		
BOD EFFLUENT (MG/L)	16.6	13.4	14.2	13.2	30/20	0/0
BOD INFLUENT (LBS./DAY)	11103.2	10712.2	8926.0	9910.8		
BOD EFFLUENT (LBS./DAY)	488.2	395.9	464.3	446.8		
BOD % REMOVAL	95.5	96.3	95.0	95.5		
TSS INFLUENT (MG/L)	393.5	380.5	309.2	344.3		
TSS EFFLUENT (MG/L)	9.5	10.0	9.8	9.0	30/25	0/0
TSS INFLUENT (LBS./DAY)	11442.5	11115.7	10013.0	11531.0		
TSS EFFLUENT (LBS./DAY)	281.0	299.6	326.6	306.8		
TSS % REMOVAL	97.5	97.3	96.7	97.3		
FECAL COLIFORM (MPN/100ML)	2.9	1.6	3.5	21.7	200.0	0/0
CHLORINE RESIDUAL (MG/L)			1.6	1.5	2.0*	0/1

\*Daily Maximum Limit

## WARWICK 1986 -1999 DATA



## Operations & Maintenance

While the plant is preparing for significant upgrades, the past two years has shown little news in the day to day operations of the plant.

1998 O&M Rating: 10 out of 10

1999 O&M Rating: 10 out of 10

1998 Laboratory Rating: 5 out of 5

1999 Laboratory Rating: 5 out of 5

**Overall O&M Rating: Excellent**

### 1998 SLUDGE DISPOSAL METHOD

Incineration (NETCO)

### SLUDGE PRODUCED

821 DRY TONS

### 1999 SLUDGE DISPOSAL METHOD

Incineration (NETCO)

### SLUDGE PRODUCED

728 DRY TONS

Sludge generated by the facility is transported in liquid form to the NETCO-operated incinerator in Woonsocket for disposal.